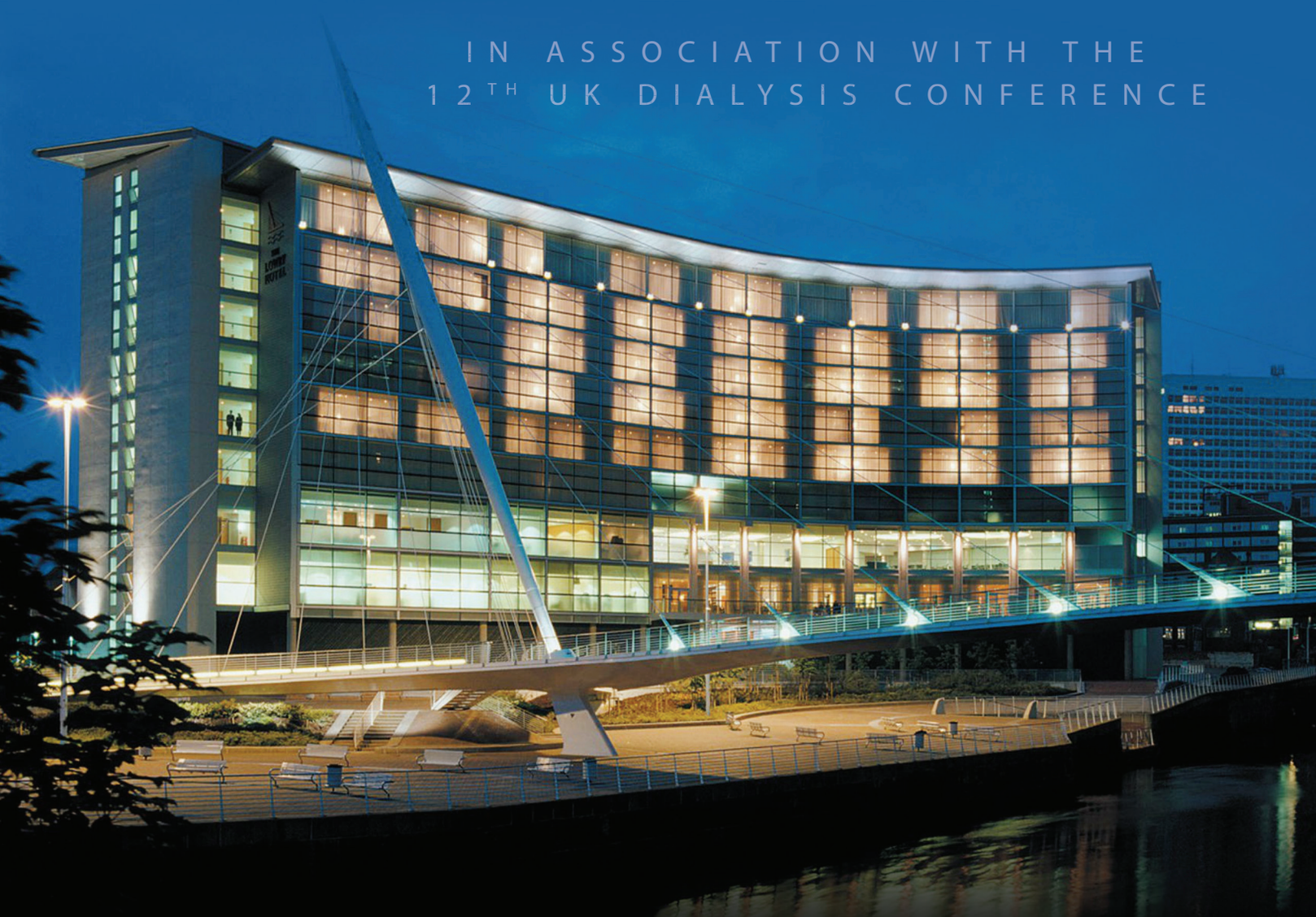
VASBI

ANNUAL MEETING 2019

IN ASSOCIATION WITH THE
12TH UK DIALYSIS CONFERENCE



DELEGATE HANDBOOK

25TH & 26TH SEPTEMBER 2019

Lowry Hotel, Dearmans Place, Chapel Wharf,
Manchester, M3 5LH

SPONSORS

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WELCOME TO VASBI 2019

Hello and welcome to Manchester and to the 2019 VASBI annual conference that for the first time is jointly organised with the ADC. This is a great fit for both VASBI and ADC and we hope that there is joint learning and socialising for both sets of attendees, with the emphasis on the socialising!

It has been a busy year for VASBI having helped organise and run the VAS conference in Rotterdam in April of this year. This was such a great success to the point we have been invited to join forces again for their next meeting in the Spring of 2021 in Berlin. Keep an eye out for e-mails and alerts of the dates, abstract submission and registration. It promises to be another great meeting in a great city, although we all might need visas to get there by then!

The theme for this years meeting is "Dialysis at the limits" and we hope we will explore some of the more difficult situations we find ourselves in while caring for patients needing access, maintaining their access and optimising dialysis. This theme will continue into the ADC over Thursday and Friday. We hope you enjoy the programme on offer and join in with the discussions as this is often the most informative part of any meeting. We will close the day with the ever popular MegaMDT where some of us can and will take the opportunity to wash our dirty laundry in public. After that we can all retire to the bar followed by the VASBI conference dinner. But don't forget we have the second scientific session bright and early on Thursday before the start of the ADC.

My presidency comes to at end at this conference as I hand over to my long-term great friend and colleague, Mr James Gilbert, whom I am sure will take the Society onto even bigger and better things. I would therefore like to take this opportunity to thank the executive members, council as a whole and Ruth Moss and her team for all the support I have received over the last two years. It has been my honour and pleasure to lead the Society and I hope I will continue to be able to support and help in it's future development.

Finally, we look forward to VASBI 2020 in Glasgow and then, hopefully VASBI 2021 in Oxford.

I look forward to chatting with many, if not all, of you over the next few days and wish you all a great conference.

VASBI – Optimising Vascular Access. Improving Patients' Lives.

Mr Paul Gibbs
VASBI President
September 2019

PROGRAMME - WEDNESDAY 25TH SEPTEMBER

ALL SESSIONS WILL BE HELD IN THE LECTURE THEATRE UNLESS OTHERWISE STATED

Time	Session & Topic	Chair*/Speaker
08.30-09.15	**Registration & Refreshments**	
09.15-09.30	**Welcome & Introductions to the VASBI Day Symposium**	Mr Paul Gibbs
09.30-10.30	**Scientific Session 1***	Mr Paul Gibbs* & Mr Nick Palmer*
10.30-11.00	**COFFEE BREAK & INDUSTRY EXHIBITION**	
11.00-12.30	**Plenary 1: Vascular Access at the Limits** Breakdown of this session: • Patient Story • Vascular Access in the Elderly • Vascular Access in the Obese • Button Holing PTFE Grafts • Vascular Access without Veins • Vascular Access in Crash Landers Followed by a Panel Discussion	Dr Saeed Ahmed* & Mr Jeremy Crane* Dr Jennifer Hanko Mr Hiren Mistry Miss Catherine Boffa Dr Nick Sangala Dr Hussein Khambalia Mr James Gilbert
12.30-14.00	**LUNCH / SYMPOSIUM / POSTERS**	
12.45-13.30	Industry Sponsored Symposium	
13.30-14.00	Posters	
14.00-15.30	**Plenary 2: Getting it Right in Access** Breakdown of this session: • Patient Story • Access Outcomes: Does the type and timing of access matter? • Save your Vein • The new KDOQI Guidelines • The LCC Pathway: What does good look like? • Vascular Access Surveillance: Who, when & how? • Vascular Access Maintenance: Who, when & how? Followed by a Panel Discussion	Mr Hiren Mistry* & Dr Sarah Lawman* Mr Phil West Dr Peter Thomson Mr Jeremy Crane Mr Nick Inston Dr Saeed Ahmed Mrs Alayne Gagen Mr James Gilbert
15.30-16.00	**COFFEE BREAK**	
16.00-17.00	Mega MDT	Dr Jennifer Hanko* & Dr Kate Steiner*
19.00 onwards	**VASBI CONFERENCE DINNER - LOWRY HOTEL**	

***Full abstracts can be found on pages 9-19**

PROGRAMME - THURSDAY 26TH SEPTEMBER

ALL SESSIONS WILL BE HELD IN THE LECTURE THEATRE UNLESS OTHERWISE STATED

Time	Session & Topic	Chair*/Speaker
08.30-09.30	**VASBI Membership Renewal**	
09.45-10.45	**Scientific Session 2***	Dr Jennifer Hanko* & Dr Paul Gibbs*

CLOSE OF VASBI MEETING

THE 12TH ANNUAL UK DIALYSIS CONFERENCE

Thursday 26th & Friday 27th September 2019

Sponsors:

Baxter, NxStage, Physidia, Fresenius, Quanta, Medtronic, BBraun, Independence Products Ltd, CES, Linc Medical, U-Drain, Mitsubishi Pharma, Stanningley Pharma, Auriga Services, Kidneys for Life, Diaverum, Gore, Royal College of Nursing

FULL PROGRAMME AVAILABLE AT VASBI.ORG.UK

FACULTY BIOS

The VASBI 2019 Faculty bios can be viewed on the new VASBI website:
www.vasbi.org.uk/meet-the-team

SCIENTIFIC SESSIONS

SCIENTIFIC SESSION 1

Session	Title	Presenter
1	Why dialysis patients make poor access decisions ' a qualitative analysis	Mr Ash Wadoodi
2	Vascular access in a district general hospital kidney unit: An 18 year experience	Alison Swain
3	MAGIC ' can we really wave a wand and improve cannulation and patient experience?	Alison Swain
4	Smoking is associated with a higher complication and failure rate in arteriovenous grafts for haemodialysis: a multi-centre experience.	Aaron Kler
5	A UK expert consensus approach for managing symptomatic arteriovenous fistula (AVF) stenosis in haemodialysis patients	Paul Gibbs Peter
6	Ferumoxytol MR Angiography vs Doppler US for vascular mapping before haemodialysis arteriovenous fistula creation	Thomson

SCIENTIFIC SESSION 2

Session	Title	Presenter
1	Effect of contrast administration on renal function in predialysis patients with ArterioVenous Fistulas undergoing fistuloplasty	Panagiota Birmpili
2	Wearable Device for Continuous, Non-Invasive Monitoring of Vascular Access Health and Fluid Status in Hemodialysis Patients	David Kuraguntla
3	Should a Surgical radio cephalic AVF be first or and Endovascular Percutaneous AVF? A single centre matched cohort comparative study	Nicholas Inston
4	Drug-Eluting Balloon Exposure and Patient Outcome in a Regional Haemodialysis Cohort	Conor Moran
5	Paclitaxel assisted balloon Angioplasty of Venous stenosis in haEmodialysis access; Baseline clinical and demographic data from the PAVE trial.	Michael Robson

POSTER LIST

POS000087 - UNNECESSARY HOSPITAL ADMISSIONS, PROCEDURES AND COMPLICATIONS FROM DELAYED AVF SALVAGE
Lauren Floyd, Royal Preston Hospital

POS000096 - SHOULD AGE DETERMINE IF A PATIENT IS A SUITABLE CANDIDATE FOR ARTERIOVENOUS FISTULA (AVF) FORMATION?
Hannah Nanapragasam, Charing Cross Hospital

POS000099 - ANTIBIOTIC PROPHYLAXIS FOR ARTERIOVENOUS FISTULA SURGERY
Georgina Hicks, Hammersmith Hospital

POS000101 - IT IS POSSIBLE TO ACHIEVE AND EXCEED THE RA STANDARDS FOR DIALYSIS ACCESS IN INCIDENT PATIENTS.
Johann Nicholas, Royal Shrewsbury Hospital

POS000105 - DO FLOW RATES IN BRACHIOCEPHALIC ARTERIOVENOUS FISTULAS PREDICT DEVELOPMENT OF CEPHALIC ARCH STENOSIS?
Eimear McKenna, Belfast City Hospital

POS000110 - ULTRASOUND MAPPING OF NEW CANNULATION SITES FOR ARTERIOVENOUS FISTULA/ GRAFTS AT SOUTH TYNESIDE AND SUNDERLAND FOUNDATION TRUST (STSFT) RENAL UNIT
Haroon Ayub, South Tyneside and Sunderland Foundation Trust

POS000111 - EXPERIENCE OF ARTERIOVENOUS GRAFTS IN PATIENTS OF LAST RESORT
Tarique Sabah, University Hospital of Wales

POS000113 - DEVELOPMENT OF A PAEDIATRIC HAEMODIALYSIS TRIGGER TOOL FOR CHILDREN RECEIVING INTERMITTENT IN CENTRE HAEMODIALYSIS
Carmen Barton, Evelina London Children's Hospital

VASBI

ANNUAL MEETING 2020

SAVE THE DATE

1ST & 2ND OCTOBER 2020

ROYAL COLLEGE OF PHYSICIANS & SURGEONS OF GLASGOW

232-242 ST VINCENT STREET, GLASGOW, G2 5RJ

OP000108 - Paclitaxel assisted balloon Angioplasty of Venous stenosis in haEmodialysis access; Baseline clinical and demographic data from the PAVE trial

Category: Oral

Authors: Narayan Karunanithy, Department of Interventional Radiology, King's College London and Guy's and St Thomas' NHS Trust.
Leanne Gardner, School of Immunology and Microbial Sciences, King's College London
Yanzhong Wang, Department of Biostatistics, King's College London.
Anthony Dorling, School of Immunology and Microbial Sciences, King's College London
Francis Calder, Department of Nephrology, Guy's and St Thomas' NHS Trust
Charlotte Bailey, School of Immunology and Microbial Sciences, King's College London
Emily Robinson, Department of Biostatistics, King's College London
Janet Peacock, Department of Biostatistics, King's College London
Michael Robson, School of Immunology and Microbial Sciences, King's College London and Guy's and St Thomas' NHS Trust

Aims: The initial therapy for a stenosis in an arteriovenous fistula is radiological balloon dilatation or angioplasty. The benefit of angioplasty is often short-lived,and intervention-free survival is reported to be 40-50% at one year. Previous small studies and observational data suggest that paclitaxel-coated balloons may be of benefit in improving outcomes. PAVE is a multicentre, doubleblind randomised controlled trial to test the superiority of paclitaxel coated balloons for preventing restenosis after fistuloplasty in haemodiaysis patients with a native arteriovenous fistula.

Materials & Methods: Inclusion criteria include, an absence of synthetic graft material or stents, and a residual stenosis ,â§ 30% after plain balloon fistuloplasty. Exclusion criteria include a lesion that cannot be treated with a single drug-coated balloon, a stenosis central to the thoracic inlet or a thrombosed access circuit. The primary endpoint is time to end of target lesion primary patency. This is defined as a clinically-driven radiological or surgical reintervention at the treatment segment, or abandonment of the access circuit due to an inability to retreat the treatment segment.

Results: Recruitment started in November 2016. 20 centres throughout the UK have taken part. With the addition of additional sites, successful recruitment of 212 participants to the PAVE was completed on 2nd October 2018. Follow up will continue until October 2019. Baseline data cleaning and analysis are now underway and we will present baseline data on randomised participants at the VASBI meeting. This will include demographic data and clinical data including the type of fistula and location of the treated lesion. The trial is funded by NIHR/MRC EME program; Trial registration ISRCTN14284759.

Conclusions: This trial will provide rigorous data that will determine the efficacy of additional paclitaxel-coated balloon fistuloplasty versus plain balloon fistuloplasty only to preserve the patency of arteriovenous fistulae used for haemodialysis. While the PAVE trial was in progress, the American industry-sponsored AV trial was published. In this study the 180-day end point was not met. There are differences in design between PAVE and the AV study, with the exclusion of patients with a lesion that cannot be treated with a single drug-coated balloon from PAVE being the most important.

OP000107 - Ferumoxytol MR Angiography vs Doppler US for vascular mapping before haemodialysis arteriovenous fistula creation

Category: Oral
Authors: Sokratis Stoumpos, Renal & Transplant Unit, Queen Elizabeth University Hospital
Alfred Tan, Radiology, Queen Elizabeth University Hospital
Ram Kasthuri, Radiology, Queen Elizabeth University Hospital
Patrick Mark. Cardiovascular Research Centre, University of Glasgow
Giles Roditi, Radiology, Queen Elizabeth University Hospital
Karen Stevenson, Renal & Transplant Unit, Queen Elizabeth University Hospital
David Kingsmore, Renal & Transplant Unit, Queen Elizabeth University Hospital

Aims: Doppler ultrasound (US) is routinely performed for vascular mapping prior to placement of a haemodialysis arteriovenous fistula (AVF) but has the disadvantage of no direct visualisation of the central vasculature. Ferumoxytol, an iron oxide nanoparticle, provides an alternative to gadolinium for magnetic resonance angiography (MRA). We compared ferumoxytol-enhanced MRA (FeMRA) with Doppler US for assessment of the central and upper extremity vasculature in patients with chronic kidney disease due for autologous AVF creation..

Materials & Methods: In a prospective comparative study, paired FeMRA and Doppler US were performed. Three readers independently assessed arterial and vein diameter, stenosis or occlusion, and central vasculature between FeMRA and US. Interclass correlation coefficients and Bland-Altman plots examined inter-reader variability. Based on accepted standards for AVF creation, an algorithm was created to predict AVF outcome based on mapping findings. Two logistic regression models were created with AVF outcome as the dependent variable and US (model 1) or FeMRA prediction algorithm (model 2) as the predictor variables.

Results: From the 59 patients that had FeMRA and Doppler US, 51 had an autologous AVF created. FeMRA showed excellent inter-reader repeatability (ICC 0.84,Äì0.99). Vessel course, accessory veins, anatomical variants and the presence of occlusion or stenosis in arm vessels were better assessed with FeMRA. FeMRA identified 15 central vasculature stenoses. On multivariable regression analyses FeMRA mapping was an independent predictor of AVF outcome [odds ratio (OR: 6.49 (95% CI 1.70,Äì24.79; p=0.02]. US mapping was not predictive of AVF outcome [odds ratio (OR: 2.49 (95% CI 0.74,Äì8.38; p=0.14].

Conclusions: FeMRA prior to AVF creation better predicted outcome compared to Doppler US. Its value is not limited in identification of central vessels pathology but it also showed peripheral vascular disease under-recognised with US.

OP000106 - A UK expert consensus approach for managing symptomatic arteriovenous fistula (AVF stenosis in haemodialysis patients

Category: Oral
Authors: Paul Gibbs, Wessex Kidney Centre, QAH, Portsmouth
Ounali Jaffer, Interventional radiology, Barts Hospital

Aims: Stenoses in mature arteriovenous fistulas (AVFs negatively impact both the quality of haemodialysis and the longevity of the AVF. Multiple treatment options exist, with treatment selection shaped by both the clinical service set-up and the evidence supporting different interventions. This Delphi process aimed to establish multidisciplinary expert consensus on the optimal stepwise use of different interventions for the treatment of stenoses of mature AVFs at different anatomical sites.

Materials & Methods: A modified Delphi process, involving online questionnaires and face-to-face meetings, was conducted with participants inclusive of: 7 interventional radiologists, 3 nephrologists and 3 vascular access surgeons from hospitals across the UK. The usual intervention to rectify de novo stenoses is fistuloplasty, although surgery for inflow segment stenoses is also acceptable. Appropriate first-line interventions include plain old balloon angioplasty (POBA or high-pressure balloon (HPB angioplasty; if these fail, consider alternative interventions such as cutting or scoring balloons and ultra-high-pressure balloons. Alternative interventions vary by anatomical site and may require additional multidisciplinary team (MDT input.

Results: For a stenoses recurring between 3 and 12 months, it is appropriate to consider interventions used de novo, but with a lower threshold for using drug-coated balloons (DCBs and for using stent grafts in all regions but inflow segment. Recurrence after 12 months should be treated as a de novo lesion, with DCBs interventions.

Conclusions: These expert recommendations provide a practical guide for MDTs to help optimise the use of multiple interventions for rectifying AVF stenosis.

OP000104 - Drug-Eluting Balloon Exposure and Patient Outcome in a Regional Haemodialysis Cohort

Category: Oral

Authors: Conor Moran, Department of Nephrology, Belfast City Hospital, Belfast Health and Social Care Trust
Conor Oliver, Department of Nephrology, Belfast City Hospital, Belfast City Hospital
Agnes Masengu, Department of Nephrology, Daisyhill Hospital, Southern Health and Social Care Trust
Jennifer Hanko, Department of Nephrology, Belfast City Hospital, Belfast Health and Social Care Trust

Aims: Arteriovenous access is preferred for haemodialysis (HD; endovascular intervention is essential to maintain access patency. A recent meta-analysis raised concerns about excess mortality with the use of Drug-Eluting balloons (DEB for Peripheral Arterial Disease. Data is lacking for HD patients. This study aimed to analyse outcomes in a cohort of HD patients.

Materials & Methods: Using a regional vascular access database, patients who underwent angioplasty to an arteriovenous access were identified. A regional electronic health record, (NI ECR ,Äì Concerto, Orion Health, and regional renal data system (eMed Renal ,Äì Mediqal H.I. were used to collect patient demographics, and procedural notes were examined for DEB exposure. Statistical analysis: SPSS. Pre-dialysis patients were excluded.

Results: 190 patients were included. All patients underwent at least one endovascular procedure. Patients were separated into two groups: any exposure to a drug-eluting device (DEB group (n=106, plain balloon angioplasty only (POBA group (n=77. There were no significant differences in gender (p=0.83, median age at HD commencement (p=0.31, diabetes status (p=0.28, and median survival from HD commencement (5.6 in DEB vs. 4.3 years in POBA group, p=0.15. Median DEB exposures were 2 (range: 1-20. At 5 years follow-up, survival was 80.5% (DEB; n=66/82 and 69% respectively, (POBA; n=40/58, p=0.12.

Conclusions: Arteriovenous access maintenance in a HD cohort is paramount. The data from this study does not support the recently reported excess mortality risk associated with DEB use when used for maintenance of HD access. DEB exposure did not adversely affect 5 year survival in this cohort.

OP000103 - Should a Surgical radio cephalic AVF be first or and Endovascular Percutaneous AVF? A single centre matched cohort comparative study

Category: Oral
Authors: Nicholas Inston, UHB, Queen Elizabeth Hospital, Birmingham

Aims: Guidelines would suggest distal AVF is created as a first option. Since their developments percutaneous endovascular arteriovenous fistula (endoAVF formation has been introduced into clinical practice. These create a proximal forearm fistula and it could be argued should be second line to a surgical radio cephalic AVF. The aims of this study were to compare WavelinQ created endoAVFs with a contemporaneous cohort of surgical fistulas within a single institution.

Materials & Methods: Data from a prospectively collected database over a 3-year period was used to analyse a matched comparative group.

Results: WavelinQ AVFs (group W, n=30 were compared with radiocephalic AVFs (group RC; n=40. Procedural success was high with 96.7% for group W and 92.6% for group RC. Primary patency at 6 and 12 months was greater in group W (65.5% 6mo and 56.5% 12mo compared to group RC (53.4% 6mo and 44% 12mo (p =ns. Death censored mean primary patency was significantly lower for RC (235 +/- 210 days vs W (362 +/- 240 days (P<0.05 Secondary patency for group W was higher than for RCAVF at 75.8% and 69.5% vs 66.7% and 57.6% at 6 and 12 months respectively.

Conclusions: Outcomes of endoAVFs in this series are similar to published results. When compared to a contemporaneously created group of surgical fistulas WavelinQ demonstrated superior outcomes supporting endoAVFs as a first option in the access pathway particularly if vessels at the wrist are absent or less than ideal.

OP000094 - Smoking is associated with a higher complication and failure rate in arteriovenous grafts for haemodialysis: a multi-centre experience.

Category: Oral

Authors: Aaron Kler, Renal Transplant, Manchester Royal Infirmary
Zulfikar Pondor, Dialysis, Salford Royal Hospital
Giuseppe Giuffrida, Renal Transplant, Manchester Royal Infirmary
Hussein Khambalia, Renal Transplant, Manchester Royal Infirmary
David van Dellen, Renal Transplant, Manchester Royal Infirmary

Aims: Arteriovenous grafts (AVG) for haemodialysis access are recommended as a second line modality due to higher morbidity and mortality rates than arteriovenous fistulae (AVF). Smoking is already an established failure risk in synthetic grafts. We aimed to investigate smoking,Äôs relationship on AVG outcomes and investigate other factors related to complications and failure.

Materials & Methods: A 3 year (01/08/2015-01/08/2018) multi-centre retrospective study was carried out on patients receiving AVG. Data included patient demographics, medical history, operation, type of graft and postoperative course. Statistical analyses performed were chisquared, Fisher's exact test and logistic regression.

Results: 59 AVGs were performed (1,052 AVF performed) in this period (25:34 M:F; median age 61 (range 8-87). The most common procedure was brachioaxillary graft (52.3%). 64.4 % had complications with 52.5% requiring post-operative intervention (Clavien-Dindo III). The most common complication was thrombosis (38.9%). Median time to intervention was 67 days and overall AVG failure rate was 44.1%. Mortality rate was 21.4%. Smoking was significantly associated with graft thrombosis (OR 7.94 2.06-30.62 95% CI, $p<0.01$ but not graft failure (OR 0.03. 0.02-1.55 95% CI, $p<0.01$

Conclusions: Complication and reintervention rates are lower than previous reports, although graft failure rate is significantly higher. Smoking results in a greater risk of thrombosis and overall graft failure. This is already described in, but has not previously been demonstrated in AVGs. As smoking is a modifiable risk factor and AVGs are typically for end-stage vascular access patients, pre-operative strategies including patient education and pre-habilitation should be employed to improve outcomes.

OP000091 - MAGIC , can we really wave a wand and improve cannulation and patient experience?

Category: Oral
Authors: Alison Swain, Renal, Royal Berkshire NHS Foundation Trust

Aims: Following the development of the MAGIC materials by the BRS/Vasbi Special Interest Group, the aim of this work is to implement the Clinical Recommendations and scoring tools, assess nurses, knowledge and practice of cannulation and then begin the process of implementing MAGIC to improve accessoutcomes.

Materials & Methods: The pre-cannulation scoring tool was incorporated into CV5 (our renal patient record system as a daily access check. Post dialysis bleeding scoring, following needle removal, was also introduced as a daily check with either ‚ÄòNormal‚Äô or ‚Äòextended‚Äô being recorded. Appropriate training on these tools was given to all staff. These scoring systems will be audited to provide early identification of access complications. Nurses‚Äô knowledge and practice were assessed by means of a short, self-assessment survey. Patients needling techniques were audited.

Results: The scoring tools were introduced just 1 month ago. Early evidence indicates an increased uptake of referrals to the vascular access nurse. More data on this will be available by September. The nurses‚Äô survey indicated a high level of dialysis experience, 84% of nurses having worked in dialysis for more than 3 years. 100% reported awareness of the 3 different modes of cannulation & various confidence levels were reported with rope ladder & buttonhole. 42% expressed a desire to improve their knowledge. These knowledge gaps will be addressed using the MAGIC materials, including e-learning.

Conclusions: 116 patients use Buttonhole (59% and 80 patients use sharp cannulation, including 23 patients with an AV graft. Ongoing assessment is taking place to assess if true rope ladder needling is being used. This data will be available by September. The historic culture of cannulation to generate improvements will not be easy to change, however, providing continuing education alongside subsequent achievement of needling competencies will be a positive step forward - with concurrent monitoring of access outcomes to assess change. The author hopes to submit more data on this project over time.

OP000090 - Vascular access in a district general hospital kidney unit: An 18 year experience

Category: Oral
Authors: Dr Emma Vaux, Renal, Royal Berkshire NHS Foundation Trust
Alison Swain, Renal, Royal Berkshire NHS Foundation Trust
James Gilbert, Renal, Oxford University Hospitals Trust
Sanjay Sinha, Renal, Oxford University Hospitals Trust
Matthew Gibson, Interventional Radiology, Royal Berkshire Foundation NHS Trust

Aims: Continuous audit of our vascular access experience against UK Renal Association standards and published practice

Materials & Methods: A retrospective (2000-2003) and prospective (2004-2018) review of patient electronic records.The haemodialysis (HD) population increased from 66 patients in 2000 to 312 in 2018. Our 10 year experience 2000-10 was reported at VASBI, 2011. From 2010 we introduced buttonhole cannulation following our randomised controlled trial (Am J Kid Dis 2013); our 8 experience is summarised in Table 1.

Results: The % stock HD population with a functioning AVF has risen from 39% (2000 to 68% (2018; % starting with AVF has risen from 17% (2000 to 63% (2018. 1 year primary patency was 69% (2000-9 cohort and 72% (2011-18. 1 year secondary patency was 76% (2000-9 and 91% (2011-18. AVF survival rate is significantly better with buttonhole cannulation and with fewer interventions needed to maintain patency. There was no significant difference in infection rate; MSSA bacteraemias remain a concern for all access.

Conclusions: Establishment of a consultant nephrologist vascular lead (2003, a vascular access nurse (2006, focused pre-dialysis care, regular monitoring of access with Transonic QC ,Ñ¢ (2006 in parallel with responsive & accessible interventional radiology & vascular access surgical services have all contributed to our rise in HD stock AVF in the face of an expanding HD population. In addition, buttonhole cannulation is associated with an AVF survival advantage. Although infection rates are in line with published figures, efforts are concentrated on understanding reasons for the rise in MSSA bacteraemias

OP000088 - Why dialysis patients make poor access decisions, a qualitative analysis

Category: Oral
Authors: Jeunita Young, Vascular Access, St George's University Hospitals NHS foundation Trust
Mr Ash Wadoodi, Vascular Access, St George's University Hospitals NHS foundation Trust

Aims: through exploring participants,Äô sense-making and experiences of diagnosis, treatment options with particular reference to their choice of haemodialysis access; fistula or tunnelled line.

Materials & Methods: Qualitative interviews of 10 dialysis patients were carried out with the appropriate ethical approval. Participants completed a demographic questionnaire and in-depth semi-structured interviews. Interviews were transcribed verbatim and thematically analysed using the Braun and Clarke,Äôs thematic analysis approach (2006.

Results: Participants expressed that diagnosis and treatment was transformative to their identity. They subsequently wished to feel and be perceived as ‚Äònormal,Äô. Therefore the least invasive form of access was preferable i.e. tunnelled line. Loss of autonomy and fear of their future health status, were cited as sources of tension that led to dysfunctional interactions with health care providers. We found that family, fellow patients and faith communities offered invaluable support, however the types of advice and the extent to which participants were influenced by their support communities differed.

Conclusions: This study provides insight into life-changing physical, psychological and social implications of dialysis. Participants,Äô aims focus on normality, and gaining control which biases them against surgical intervention, despite best medical outcomes. Dialysis-decisions proved difficult to navigate due to differences in health literacy, acceptance and adjustment. Future research would aim to better understand the impact of the patient,Äôs support network, including auxilary health care providers in dialysis decision making.

OP000084 - Wearable Device for Continuous, Non-Invasive Monitoring of Vascular Access Health and Fluid Status in Hemodialysis Patients

Category: Oral
Authors: David Kuraguntla, GraftWorx, Inc.
Samit Gupta, PhD, GraftWorx, Inc.
Forrest Miller, GraftWorx, Inc.

Aims: Over 30,000 patients are currently undergoing hemodialysis in the UK and Ireland. A healthy, mature arteriovenous fistula (AVF is critical for these patients, for whom maintenance of euvolemia is also a major challenge. This study presents a novel wearable device that enables remote monitoring of AV access health and multiple key fluid status metrics. The primary aim of the study presented here was to evaluate the system,Äôs ability to accurately and precisely measure blood hemoglobin (Hb and hematocrit (Hct concentration, critical health markers that dictate dialysis treatment.

Materials & Methods: 103 hemodialysis patients with arteriovenous fistulas currently undergoing hemodialysis were recruited across three clinical sites. Each of these patients had a SmartPatch device placed on the skin over their fistula. 71 of these patients also received a duplex ultrasound or fistulogram to assess percent stenosis of the AVF. 100% of major (>50% stenosis lesions were detected. The remaining 33 patients had their Hb and Hct tested with a HemoCue Hb 201+ device; a subset of these patients were also tested with a Transonic flowmeter to determine volumetric flow rate through the AVF.

Results: The SmartPatch system measured Hb and Hct with respective root-mean-square error (RMSE of 0.863 g/dL and 2.585 Hct compared to reference values obtained from the HemoCue device, whose accuracy has been reported to be between 0.3 and 1.6 g/dL (0.9 to 4.8 Hct. Flow rate values obtained from the SmartPatch were compared to flowmeter values taken at a dialysis session within 1-5 days from the patch readings. The SmartPatch was able to reliably identify volumetric flow rate (VFR values less than 1000 mL/min (sensitivity: 100%, specificity: 75%; n=21.

Conclusions: The results of this study illustrate the ability of the wearable SmartPatch system to non-invasively measure volumetric flow rate, blood Hb and Hct in hemodialysis patients with AV fistulas, to a clinically viable degree of accuracy comparable to available methods. This study also showed the ability of the SmartPatch system to detect progression of the degree of stenosis in AV fistulas. Finally, this study demonstrated the efficacy of the end-to-end GraftWorx data path.

OP000083 - Effect of contrast administration on renal function in predialysis patients with ArterioVenous Fistulas undergoing fistuloplasty

Category: Oral
Authors: Panagiota Birmpili, Vascular Surgery, Arrowe Park Hospital
Thomas Pearson, Vascular Surgery, Arrowe Park Hospital
Ewa Zywicka, Vascular Surgery, Arrowe Park Hospital
Matthew Gornall, Medical Statistics, Liverpool Cancer Research-UK Centre
Ramasubramanyan Chandrasekar, Vascular Surgery, Arrowe Park Hospital

Aims: The purpose of this study was to investigate (1 if administration of contrast during fistuloplasty negatively affects the renal function, as indicated by the estimated glomerular filtration rate (eGFR, of predialysis patients with arteriovenous fistulas and, (2 if oral hydration has a protective effect.

Materials & Methods: All the pre-dialysis patients who underwent fistuloplasty between August 2010 and January 2017 were included in the study. Creatinine values pre- and post-procedure were extracted from patient records and eGFR calculated using the abbreviated Modification of Diet in Renal Disease (MDRD equation. During fistuloplasties, 35-50mls of contrast were administered. Data were grouped before and after March 2015, when the pre-hydration protocol was introduced. The difference between pre- and postcontrast eGFR and the difference between the eGFR of hydrated and non-hydrated groups were calculated.

Results: Seventy nine patients who underwent 130 procedures were included in the study.In 42% of procedures a mean decrease of 2.09 in eGFR was noted (95%CI 1.54, 2.64, while in 28% there was an increase of 1.81(95%CI 1.42, 2.19, but no statistically significant difference between the pre- and post-procedure eGFR(p=0.10. Oral hydration was associated with 11% relative risk reduction in the decline in eGFR post contrast administration (RR 0.89, 95%CI=0.59, 1.36. A smaller mean change in the eGFR(0.26 vs 0.37 was observed in patients who received hydration, but not statistically significant(p=0.98.

Conclusions: Our study demonstrates that administration of up to 50mls of contrast for fistuloplasty does not affect the eGFR of pre-dialysis patients significantly. In addition, the introduction of oral hydration before and after the procedure has only a mild protective effect against a decrease in eGFR, which is not statistically significant.

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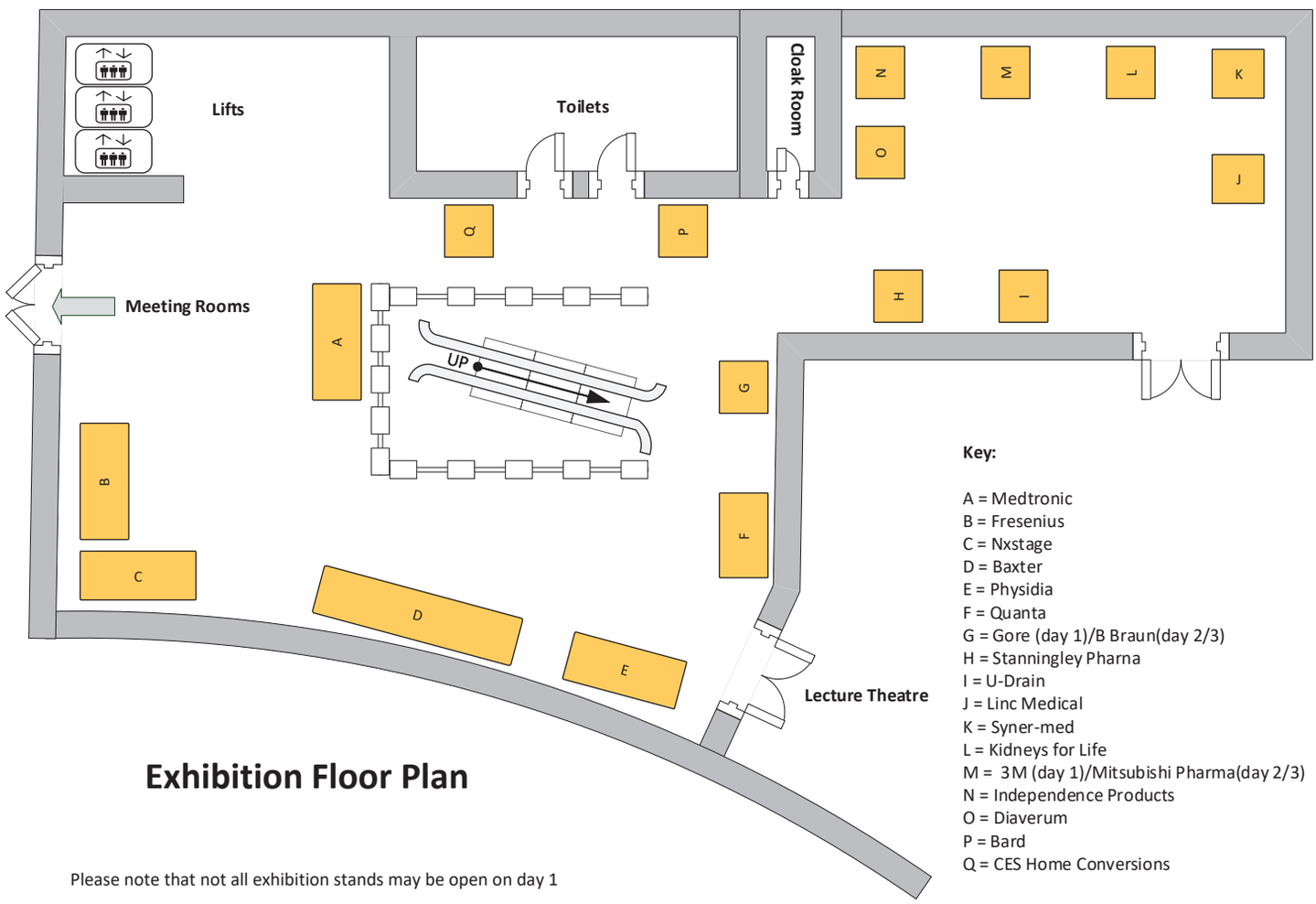

Exhibition Floor Plan

Please note that not all exhibition stands may be open on day 1

Key:

A = Medtronic
B = Fresenius
C = Nxstage
D = Baxter
E = Physidia
F = Quanta
G = Gore (day 1)/B Braun(day 2/3)
H = Stanningley Pharna
I = U-Drain
J = Linc Medical
K = Syner-med
L = Kidneys for Life
M = 3M (day 1)/Mitsubishi Pharma(day 2/3)
N = Independence Products
O = Diaverum
P = Bard
Q = CES Home Conversions

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To obtain your CPD and certificate of attendance, please visit vasbi.org.uk and evaulatate the meeting